ELECTRICAL INSTALLATIONS

Electrical Standard Scope

Any electrical installation done by the Contractor shall comply with the following electrical standards: NTC 2050 last upgraded version including, but not limited to, chapters 1,2,3,4 and section 645, NEC 250 last upgraded version, NTC 3471/UL 67, EIA/TIA 607, EIA/TIA 568-569 last upgraded version, ANSI/IEEE C62.41-C62.45, NEPA 780, NTC 4552, IEEE-80, IEEE-77 and RETIE last upgraded version. The Contractor shall include in his proposal catalogs and technical sheets of materials, parts and elements to be used in the project. The awarded Contractor shall include in his bid an Electrical/Electronics Engineer, who shall manage and control the execution of the electrical and communication work. The proposed Electrical/Electronics Engineer shall also sign the installation conformity and material conformity acts requested on RETIE. The Contractor shall include in his proposal the curriculum vitae of the proposed engineer.

IMPORTANT

The required civil work for the underground raceway system shall include the costs for repairing the affected areas during the project execution (sidewalks, pavements, green areas and concretes among others). The awarded Contractor shall comply with civil and electrical Colombian Constructions standards even if the affected areas do not.

The Contractor shall submit catalogs and technical spread sheets for all the materials to be used during the construction project. Lack and/or omission of such technical information shall render the proposal invalid and the proposal shall not be taken into consideration during the award process.

Removal of 8 lamps

The Contractor shall quote for the removal of 6 lamps, type metal halide of 400W, 220VAC. The work includes dismantling of the cabling and piping system for the units to be eliminated.

Electrical/data wiring relocation

The awarded Contractor shall relocate and canalize a portion of the existing metallic ladder, which interferes with the new construction. The interference area is shown in plan E 1/8. The item includes the feeder's length increasing of the secondary circuits, which are crossing by the interference area. The Contractor shall quote the materials and the portion of metallic ladder required to meet this item. The circuit's length enhancement shall be done by using the same type of feeder, such as is found in the area. For connection purposes the Contractor shall quote 3M or any other RETIE-certified unions/slices, in order to reduce connection losses. Since the UTP is not subject to be enhanced, the Contractor shall replace the whole UTP cabling which crosses the area to be modified. The UTP lines shall be certified according to standard ANSI/TIA CAT 5E.

Main circuit branch enhancement

The Contractor shall quote for supply and installation of a new electrical feeder, which shall enhance the current capacity of the existing electrical circuit. This feeder shall connect the main panel board on power substation with the general panel board in the Warehouse building; in fact this area shall be modified during the contract execution. The estimated distance between power substation's general panel board and the Warehouse's general panel board is 60 meters; however the contractor shall verify such measure during the pre-proposal site visit, adjusting it as necessary. The new main circuit branch shall by a tetra-pole system THHN/THWN AWG 4X No.1/0+ TX No 2. The Contractor shall quote for supply and installation of a set of industrial three-pole breakers, thermo-magnetic trigger with a current protection

capacity of 3X150A, upgrading the existing ones of 3X64 A (located on each panel board). The new set of breakers shall be brand new of a well-known vendor such as Merlin Gerin, ABB, Siemens or equivalent. In all cases the units to be provided shall be RETIE-certified. The main circuit branch shall be labeled according to the existing maintenance schema. The new feeder shall use the existing piping system.

Secondary circuit branches
The Contractor shall quote for supply and installation of two secondary circuit branches. The new circuit branches shall depart from the Warehouse's general panel board (WGPB), ending on each of the new distribution panel boards (one for general services and the second for AC system). The new circuit branches shall be wired as follows:

From WGPB to new Distribution Panel Board: THHN/THWN AWG 4X No.4+ TX No 6, Approx Length (30m)
From WGPB to new Distribution Panel Board-DC: THHN/THWN AWG 4X No.4+ TX No 6, Approx Length (32m)

Important: Since the proposed measures are being provided as estimated values for design purposes, the Contractor needs to verify these values on site.

The Contractor shall quote for supply and installation of a set of industrial three-pole breakers, thermo-magnetic trigger with a current protection capacity of 3X50A for each of the new circuit branches. The new circuit branches shall be canalized through EMT 1 ¾ inch pipes, such as shown in attached plans. The piping installation for each panel board shall be independent and shall be embedded in the new steel deck.

New Distribution Panel boards
The Contractor shall quote for supply and installation of two new electrical circuit boards, which allow for the electrical distribution for the proposed services on the new facilities. The new panel boards shall have space for the main breaker (as requested before, 3X50A), barrages for phases, neutral and ground (copper). The phases' barrages shall be protected by an acrylic sheet or any other RETIE-certified mechanism, in order to avoid direct manipulation (Dead front). The new panel board units to be supplied and installed shall be in metal and shall comply with Colombian standard NTC 3475 or US standard UL67. The new panel board units shall have a current capacity up to 400A (See capacity accordingly in NTC 3475, table 11.2), voltage isolation rate 600VAC and interruptive current capacity up to 50KA.

The awarded Contractor shall supply and install the new main breaker and the secondary circuit protections. One of the proposed Distribution Panel Boards shall have a capacity of 42 circuits and the second one shall have a capacity of 36 circuits. The power capacity list for the new breakers is available in the annex "Electrical calculations.pdf". The circuit breakers to be used during the project shall be brand new, RETIE-certified and of a well-known brand such as ABB, Siemens or Merling Gerin.

Each one of the new distribution panel board units to be supplied and installed shall have an independent TVSS class B device, which shall comply with US standard ANSI/IEEE C62.41-C62.45, interruption capacity up to 180KA, protection modes L-L-L-N, L-G, reject filtering rated > -30dB, led indicator of status, operational voltage 208VAC/120VAC, response time < 100nSeg and support to three pole system. The unit shall be installed internally or externally. The Contractor shall annex in his proposal the NEMA LS-1 format, specifying the equipment's technical sheet to be supplied and installed. The new Distribution Panel Boards shall have frontal door, lock and external signaling according to RETIE.

The new Distribution Panel Boards shall be made in CR BWG No 16-18 and shall be painted using a special treatment in order to support current conditions such as oxidation, water and salinity, which are currently present in the area. The internal spaces shall comply with the US standard IEEE-142. The Colombian standard NTC 2050 and RETIE shall be observed during installation and hardware deployment.

Junction boxes for secondary circuit panel boards
The Contractor shall quote for supply and installation of metallic junction boxes, which shall be placed according to distribution presented on attached plans. The new junction boxes shall be made in metal with dimensions of 10cmX10cmX10cm.

Secondary circuit- Electrical wiring
The Contractor shall quote for supply and installation of the new cabling system for each of the new circuits on the new facilities. The expected wiring shall be type THHN/THWN AWG 3XNo.12. The information regarding wire's caliber is attached in the annexed document "Electrical calculations.pdf.

Secondary circuit- raceway and ducts
The Contractor shall quote for supply and installation of a metallic raceway, which shall be placed as shown in the annexed electrical plans. The raceway system shall be compounded by a metallic raceway, metallic piping and by a segment of a metallic ladder (see item "Distribution raceway backbone from second to first floor" for more details).

The new metallic raceway shall have a metallic splitter, providing two cavities, one for electrical wiring and the other one for data wiring. The new raceway to be installed and supplied shall be electrostatic painting type, 15cm x 5cm, with special treatment to prevent corrosion (due to local environmental conditions). The new metallic raceway shall be placed along the walls and over the baseboard, such as shown in plans E 1/8 and E 2/8.

The metallic piping shall be made up of EMT pipes, and except when the plans indicate otherwise, the piping gauge will be ¾ inch. The new system shall run on the ceiling and/or walls, suspended or fixed along or embedded, as shown in annexed plans. EMT accessories and installation devices such as anchors are subject to be included in the proposal.

Single-phase isolated grounding pin receptacle
The Contractor shall quote for supply and installation of single-phase receptacles (duplex type, 120VAC/20A, NEMA 5-15R, orange color, hospital grade, isolated grounding pin) which shall be distributed according to plans along the new raceway and ducts. The new receptacle shall be marked according to NAS-COR instructions. The new receptacles shall be certified by RETIE and of well-known brands such as Legrand or Leviton.

Air Extractors
The Contractor shall quote for supply and installation of Air Extractors, with operational voltage 120VAC, case and protection mesh. The proposed units are shown in annexed plans E 7/8 and E8/8. The cooling capacity and technology type are shown in the annexed plans and the "Electrical calculations.pdf" file. The unit shall be wired and canalized according to annex "Electrical calculations.pdf". The item includes the materials and installation of piping, wiring, current protection and the control for starting operation (electrical contractor). The electrical contractor shall be placed 120cm from finished floor, just below the Air Extractor (Axial type only). In the case of the non Axial Air Extractor, the electrical contractor shall be placed beside the light switch. If the proposed Air Extractor units do not operate

according to the requested voltage and wiring specified in this attachment, then the Contractor shall adjust the cabling capacity and protection circuit accordingly. This action shall be clarified in the proposal.

Eolic extractors
The Contractor shall quote for supply and installation of eight (8) eolic extractor units (aluminum, 50cm diameter, top roof installation), which shall be placed according to plan E-9. The Contractor shall include in his proposal all the elements and accessories required for the correct installation.

Energy-Saving Lamps
The Contractor shall quote for supply and installation of the number of lamps shown in plans E 5/8 and E 6/8. The new lamps shall include the electrical access service point (tube type EMT ¾'', cabling and light switch toggle type), bulb 2X25Watts, E27, appliances, and accessories for proper installation. The lamps shall be fixed to the metallic ceiling in each building. Energy-saving lamps are shown as circles in the plan E 6/8. The new light switches to be supplied and installed shall be certified by RETIE

Fluorescent lamps 4X17, T5
The Contractor shall quote for supply and installation of the number of lamps shown in plans E 5/8 and E 6/8. The new lamps shall be type 4X17W, specular, light reflector parabolic type, 60cmX60cm, for ceiling embedded installation. The contractor should submit samples to COR before installation is done. The new lamps shall include the electrical access service point (tube type EMT ¾'', cabling and light switch toggle type) appliances, and accessories for proper installation. The light switch appliance shall be placed 120cm from finished floor. For safety reasons, each lamp shall be tied to a metallic cord, in order to prevent the unit from falling down from the ceiling. The new light switches to be supplied and installed shall be certified by RETIE. The electrical connection shall be also done using a single receptacle, 120VAC. The Contractor shall include in his/her offer the materials and labor required to install each unit, including the electric plug, single receptacle, piping, cabling and light switch toggle type.

Fluorescent lamps 2X32, T5
The Contractor shall quote for supply and installation of fluorescent lamps 2X32, T5. The contractor should submit samples to COR before installation is done. The lamps shall be placed as shown in plans E 5/8 and E 6/8. The new lamps shall include the electrical access service point (tube type EMT ¾'', cabling and light switch toggle type) appliances, and accessories for correct installation. The new lamps shall have a light switch, which shall be installed 120cm from finished floor. For safety reasons, each lamp shall be tied to a metallic cord, in order to prevent the unit from falling down from the ceiling. The number of lamps per light switch is also presented in annexed plans. The Contractor shall include in his/her offer the materials and labor required to install each unit, including the electric plug, single receptacle, piping, cabling and light switch toggle type.

Air conditioning (AC)
The Contractor shall quote for supply and installation of an Air Conditioning (AC) multi-split type unit, 1 input, 3 output, 54KBTU capacity, well-known international brand, such as York or LG. The mini-split

unit shall be cassette type for ceiling mounting. The units to be supplied and installed shall be for 208VAC operation. The Contractor shall place the unit as shown in plan E 7/8 and E 8/8. This item shall include the price for all fixing and retention elements, accessories, electrical piping, drains and external device (condenser) in order to guarantee high function. The required civil works shall be also included and quoted.

The AC condenser unit shall be support by circular rubber appliance, 2 ½ inches external diameter, with internal hole ½" and 2 inches thickness, in order to guarantee that the AC's condenser shall not make contact with the concrete on site. On the green areas the awarded contractor shall build concrete pads according to specifications as stated in chapters on Preliminaries and Concretes, and the units will be supported by circular rubber appliances placed on top of the concrete pad. The unit will be placed as indicated in plans E 7/8 and E 8/8.

The Contractor shall quote for supply and installation of a two-pole circuit branch for each AC system. This work shall include duct installation and cabling as requested in electrical annex "Electrical Calculations.pdf". If the proposed electrical conditions do not comply with manufacturer recommendations, the Contractor shall adjust his offer accordingly. The submitted proposal shall include in its price all required materials and labor for AC installation, including breakers, rectangular boxes, ducts, cabling and elements for proper installation of the new AC units.

The Contractor shall quote for supply and installation the AC system drain per each system; with piping installation be done according to manufacturer recommendations. AC drain system is shown in plan E 7/8 and E 8/8.

Air conditioning (AC)- Minisplit

The Contractor shall quote for supply and installation of an Air Conditioning (AC) mini-split type unit, 18KBTU capacity, two poles, 208VAC 60Hz, manufactured by a well-known international brand such as York or LG, which shall replace the existing unit located in the "Hot room". The new unit installation shall use the same power resources (panel board, poke-thru) and site locations of the existing system (except for the power wiring and cooling ducts, which shall be brand new items). The electrical and environmental conditions for installation shall meet the previous AC item. The AC Condenser unit shall be placed in the same site where the existing unit is located. The civil work and site conditioning shall comply with conditions observed in the previous AC item.

Grounding system

The Contractor shall ground the new panel boards from the grounding bar located in the WGDP. The grounding lines shall be type THHN/THWN AWG No. 6 (See item "Secondary circuit branches"). Ground lines connected from the new distribution panel boards shall be installed in a radial way, avoiding looping. The awarded Contractor shall observe the standard NTC 2050 and RETIE. The awarded Contractor shall guarantee the absence of parasite current flows (60Hz) in the grounding lines. If this phenomenon happens, the awarded Contractor shall adopt the countermeasures to correct and prevent the situation (this shall be included in the proposal). The grounding work includes the communication closet and the raceway system (raceway and pipes). The Contractor shall include in his proposal grounding kits for the metallic junction boxes. EMT installation shall be grounded by using an isolated THHN/THNW AWG No. 10 feeder.

UPS 3 KVA

The Contractor shall quote for supply and installation of a UPS 3KVA, true online system, double conversion, single-phase, 120 VAC, and which shall have LAN port for management purposes (it shall have NIC). The new UPS shall be deployed in the new communication closet, with battery capacity for

30 minutes under full power load. The unit shall be brand new, APC or Power ware, and shall be manufactured within the last six months.

DATA NETWORK

Data drops

The Contractor shall quote for supply and installation of duplex data drop, ANSI/TIA/EIA-568-B.2-10 CAT 6A, which shall be certified according to stated standard. The data drops are located as shown in plans E3/8 and E3/8. Each data access point shall have jack connector, wiring, faceplate and marking icon, marking rings to identify both ends of the data drop. The Contractor shall quote for supply fifty seven-foot patch cords (for work place) and fifty five-foot patch cords (for Telecommunication closet administration).

The Contractor shall quote a well-known brand, such as AMP, Siemon or Panduit. The wiring certification shall be done by using a cabling network analyzer, which shall have a calibration certificate issued within the last six months; this is **MANDATORY** for system acceptance. The data drops shall be installed into the raceway that runs over the level of the baseboard.

The Contractor shall quote for supply and installation of three patch panels, CAT 6A-certified. Two of them shall support 24 UTP ports and the remaining one shall support 12 UTP ports. The three new units shall be labeled according to instruction by the COR during the contract execution.

Distribution raceway backbone from second to first floor

The Contractor shall quote for supply and installation of a metallic ladder tray 30cm, duct type with metallic devisor, BWG N0. 14-16, MECANO or similar RETIE-certified brand. The metallic ladder's location is shown in plan E 1/8 and E 2/8. The new metallic raceway shall be grounded by using an isolated copper wire caliber AWG No.8; this cable (Grounding Line) shall be tied down into the secondary grounding bus bar.

The grounding line shall be screwed every meter along the raceway, complying with electrical standard EIA/TIA 607. The raceway shall be duct type and shall comply with Colombian standard NTC 2050 article 318. The raceway shall be installed along the ceiling (suspended).

Telecommunication closet (TC)

The Contractor shall quote for supply and installation of a telecommunication closet of 42 inches height. The new TC shall be metallic, painted with electrostatic painting, built in cold rolled caliber BWG No. 16. The new TC shall have door with lock and ventilation mesh as well as two fans on top. The TC shall have a grounding barrage; taking into account that TC's grounding bar is connected with master barrage by using an insulated conductor THHN/THWN AWG No. 8 and connecting both metallic raceways by using an insulated conductor THH/THWN AWG No. 10. The TC shall have a power strip, which shall have the following features: TVSS class A, current interruption of 12KA, EMI/RFI filter, 5 duplex outputs 120VAC/15A, manufactured by well-known vendor and RETIE-certified.

The TC shall be divided in three parts: the first one shall be used for data purposes and shall have two patch panels with 24 UTP ports and one patch pane with 12 UTP ports, and horizontal and vertical wiring organizers. The second section shall contain two data switches. The third section shall contain the UPS and battery set.

Internetworking device
The Contractor shall quote for supply and installation of two data switch units with following features: 24 UTP port (10/100/100 Mbps), power over Ethernet, layer 2/3, manageable via Web. The suggested brand is Cisco Catalyst 2950. The system configuration is done under NAS-COR instructions.

Data link
The Contractor shall quote for supply and installation of a data link solution, which shall connect the communication closet and the CNP hangar. The separation distance between both locations is 30 meters approximately; however the Contractor is responsible for verifying this measurement during the pre-proposal conference. The Contractor shall include the piping system (EMT ¾ inches) and the civil work required to install the new data link. The new piping system shall carry in three UTP links CAT 6A, connecting both sides (the CNP Warehouse's communication closet and the hangar's communication area). The data link shall be made up of three UTP certified lines, ANSI/TIA CAT 6A. The UTP cable to be used shall be outdoor type. The installation, connectors (jacks) and the technical conditions shall be observed, as described in the item "Data drops". The Contractor shall use the existing piping infrastructure. In case the current piping infrastructure is not available, the Contractor shall include in his proposal the construction of two junction boxes in concrete (30cmX30cmX40cm). The wiring shall be marked according to COR instruction during project execution.

MARKING

The electrical works shall be marked by means of labels, directories and electrical plans placed on site. The vendor shall provide a fire extinguisher according with NFPA regulations, type ABC, including signalling icon and wall marks. Once the vendor finishes the works, he shall provide As-Built Plans including electrical diagrams, wiring gauges, pathways. Technical information from each installed device shall be included.

Warranties

The Contractor shall quote for on-site preventive maintenance service for the warranty period of one year, including, three preventive maintenances to the AC system.

Grounding lines' labeling
The grounding lines which are running from the main distribution panel board shall be marked. These marks shall be done in solid plastic, 5cm X 3cm, fonts colored in red and background colored in yellow.

Panel board labeling
The main distribution panel board, the breaker on the substation's main panel board, the new distribution panel board for each module (building) and their breakers shall be marked. All marks shall be done in solid plastic, fonts colored in white and background colored in black. The following dimensions are expected:

10cmX5cm, for the main distribution panel board
5cmX3cm, for each distribution panel board
5cmX3cm, breaker on the substation; main panel board

All panel boards shall have their own single diagram, load diagram and all circuits shall be labeled.

Junction boxes labeling
The new junction boxes shall be marked by using a metallic mark, size 3cmX4cm and low relief.

Metallic enclosures
All metallic enclosures shall be labeled by using solid plastic marks, fonts colored in white and background colored in black. The contractor shall also use safety signaling for the panel boards' doors.

Marking codes
The texts and fonts to be used in the project shall be submitted by the awarded Contractor, in order to get the COR-NAS's approval.

Main circuit branch cabling
The wiring to be used for phases shall be labeled by colored tapes in yellow, blue and red, neutral colored in white and grounding in green. The main circuit branch shall be labeled by using solid plastic marks, size 10cmX5cm, fonts in white and background in black. The font size is selected on site. The new labels shall be placed on the new junction boxes.

Secondary branch cabling
For cabling gauge bigger than (AWG No4, 2, 1/0, etc) or equal to AWG No. 6, the Contractor shall observe the same protocol depicted in the previous item. For cabling gauge such as AWB No. 8, 10 and 12, the Contractor shall use colored cabling in red, yellow and blue for each phase (not repeating each others) neutral in white and ground in green. The secondary circuits shall have plastic moorings, holding the cabling every 1.5 meters. The secondary branches shall be labeled by solid plastic marks, size 10cmX5cm, fonts in white and background in black. The font size is selected on site. The new labels shall be placed on the new junction boxes

Indoor buildings cabling
The Contractor shall use colored cabling in red, yellow and blue for each phase (not repeating each other), neutral in white and ground in green. The contractor shall install solid plastic marks on faceplates, the marks shall have the dimensions of 3cmX1cm, fonts colored in white and background colored in black.

OTHER REQUIREMENTS

List of Personnel
Prior to initiation of the work, a list of personnel to be employed at the site shall be submitted for review to be able to obtain access to work area. The information required includes full name, identification card number, place and date of birth, home address and, in some cases, a valid government certificate of good conduct and photographs. The US Government and the Base shall reserve the right to admit or withdraw personnel from the work site for reasons of security and/or due to the quality of the work.

Vehicles and Machinery
All vehicles and machinery or equipment that would schedule to enter the work area shall be itemized on a list submitted well enough in advance to be verified and to obtain an entry permit. This list shall include type of vehicle, plates, complete name and ID number and place of issue of the driver. The Contractor shall take into account the time used by vehicles and personnel in order to enter and exit the work area.

Industrial Safety Person
The Contractor shall have permanently on site a person specialized in industrial security who will be dedicated to ensure that the workers are constantly complying with the security standards of personnel and equipment, scaffolds and other installations or structures.

Apparel
All personnel shall be equipped with an overall of the same design and color, or long pants and T-shirt with sleeves of the same type and color, boots, hardhats, gloves and any security elements required for their particular activity, such as face masks or shields, gloves, boots, ear plugs, etc. Use of these items at the work site is mandatory. Likewise, each employee shall wear a laminated recent photo identity card indicating his/her name and identification card number, position, and Contractor name.

Cleaning and Debris Removal
The Contractor shall have personnel cleaning the construction site and nearby zones daily. The unit prices for all items, without exception, include the costs of cleaning up, loading and removal of all materials resulting from the building work. The Contractor will take these materials to an authorized dump, where the interests of the base, third parties and the environment will not be affected (the Contractor shall follow the parameters established in Resolution 541/94 and subsequent modifications). Material from excavations shall be deposited in such a way as to avoid blocking the entrance to the site at all times or occupying public roads while the material is being loaded into trucks for removal.

Materials and Finishes
The Contractor shall include new materials of first quality design for prolonged and heavy duty use. The Contractor shall ensure good materials and excellent finishes. All the colors and finishes shall be submitted to the US Government Representative for approval prior to purchase and installation.

The Contractor shall leave on site a stock of materials like bulbs, fuses, terminals or pipes that have been fitted, representing three (3) % of the total quantity, for future maintenance purposes. These items shall be handed over duly packed, identified and listed.

Food, Transportation and Lodging
The Contractor is responsible for food, transportation and lodging for personnel off Base.

Information of Important Events

The Contractor shall inform the Contracting Officer's Representative of special events or works, such as the pouring of concrete, tests and the like, giving the Contracting Officer's Representative at least seventy-two (72) hours notice so he/she can be physically present.

Site Description
Before beginning preliminary works, the Contractor shall complete a site description with photographs and an account of the actual conditions of roads, sidewalks, surrounding buildings, etc. This report shall be signed by the commander and Contractor. This report is for the purpose of documenting the actual status of the area before the work is performed. This report will be used to compare the site after the work is finished. Three identical copies must be furnished: one for the user (Colombian National Police), one for the Contractor, and the final one for the US Government. If the Contractor caused any damage to the work site or other private or public property, he/she shall do all the repairs prior to the contract closeout; these repairs are without cost to the US Government. At the end of the project, a closing review and memorandum should be done with the participants, with a signed copy furnished in the final report.

Inventory of Removed Elements
The Contractor shall dismantle, list, and submit the reusable elements of the work site to the final user (Colombian National Police). A signed copy of this list shall be given to the user and the Contracting Officer's Representative.

Protection of Elements in the Work Area
Areas, equipment, and elements at the work site or in areas nearby shall be protected from damage or deterioration. The Contractor shall assume the cost of any repair or replacement required because of improper use or carelessness on his part or on the part of his workers.

Security of the Construction Site
The Contractor shall supply security for the construction site and the camps. The US Government and the final user will not be responsible for the payment of the security services nor for the elements left at the construction site.

Nearby Zones
The nearby zones must be left in the same or better conditions as found prior to construction (with grass, gravel, sidewalk, floor finishes, etc as applicable). Furthermore, repairs shall be done to faults, scratches, damage and anything else which the Contractor and the US Government might note in the building and neighboring constructions for ensuring that the work is made ready and handed over correctly. The Contractor shall dismantle and remove all preliminary facilities, camps, sites, etc. before the final handover, eliminating all debris and extra materials.

Underground Interferences Study
The Contractor shall have on hand a study of all aerial, surface, underground or engaged interferences provided by the CNP, so as not to damage pipes, boxes, wiring, posts, hoses, wells or other elements or structures existing in the work area or adjacent to it. Should the excavation interfere with sewers or pipes, the Contractor shall build adequate support or protection for these installations and/or develop a new route, subject to prior approval by the US Government Representative. The Contractor shall keep all drains, caps and catch pits clear in public utility networks near excavation sites to prevent their obstruction or damage.

"FIRM AND PROJECT INFORMATION "

Firm Information		NIT NUMBER:	
NAME	ADDRESS	TELEPHONE/FAX	E-MAIL ADDRESS

Owners, Partners and Principal Officer

NAME	POSITION	TELEPHONE	ENGLISH COMMUNICATION (Ability to understand, write and read)

Legal Representatives and backups

NAME	POSITION	TELEPHONE	ENGLISH COMMUNICATION (Ability to understand, write and read)

Project Director, Superintendent and key technical Personnel for this project

NAME	POSITION	TELEPHONE	ENGLISH COMMUNICATION (Ability to understand, write and read)

Subcontractors for this project (if it does not apply indicate it in the chart)

NAME	ACTIVITY TO PERFORM	% DEL PROJECT TOTAL	TELEPHONE	ADDRESS AND CITY

Suppliers for this project

NAME	MATERIALS TO SUPPLY	% DEL PROJECT TOTAL	TELEPHONE	ADDRESS AND CITY

Requirements of the Offeror and Owners/partners:

DESCRIPTION	**YES**	**NO**	**NOTES**
Has all licenses and permits required by local law to perform?(Chamber of Commerce, Merchandise Register, Professional Licenses, etc.)			
Meets local insurance requirements (Prestaciones Sociales, ICA, Sena, etc.)			
Has the ability to obtain a performance and guarantee bond and payment bond, or adequate performance security, such as irrevocable letters of credit or guarantees issued by a reputable financial institution. Include Information			
Has adverse criminal record?			
Has political or business affiliation which could be considered contrary to the interests of the United States.			

I certify that the information is accurate and verifiable

Signature of the Legal Representative _____ Date _____

Name of the Legal Representative _____ Id Number _____

Artículo 289 del Código Penal Colombiano: *"El que falsifique documento privado que pueda servir de prueba, incurrirá, si lo usa, en prisión de uno (1) a seis (6) años ."*

"FIRM EXPERIENCE"

Indicate the experience of the firm in similar projects performed in the last ten (10) years. Include maximum 10 projects. **Do not include certifications or contract copies**. In the case we needed we will require it afterwards.

	1	2	3	4	5
NAME OF THE CLIENT (CONTRACTING PARTY)					
CLIENT ADDRESS					
CLIENT TELEPHONE NUMBER					
CLIENT POINT OF CONTACT					
CONTRACT NUMBER					
TYPE OF CONTRACT*(* 1)*					
NAME OF THE CONTRACT OR PROJECT					
PROJECT LOCATION					
PROJECT STARTING DATE					
PROJECT FINISH DATE					
WAS THE PROJECT FINISHED ON TIME (Explain if needed)					
SQUARE METERS OR UNITS (Indicate unit measurements)					
CONTRACT COST IN PESOS					
CONTRACT COST IN MONTHLY MINIMUM SALARIES					
INDICATE IF IN THIS PROJECT YOU WERE THE PRIME CONTRACTOR , SUBCONTRACTOR OR ASSOCIATE					
INDICATE THE PERCENTAGE OF PARTICIPATION OF YOUR FIRM IN THIS PROJECT					
BRIEF DESCRIPTION OF ACTIVITIES BEING PERFORMED					
COMPARISON OF THE WORK PERFORMED WITH THIS SOLICITATION *(*2)*					
BRIEF DESCRIPTION OF TECHNICAL PROBLEMS ENCOUNTERED AND THE WAY THEY WERE SOLVED					
METHOD OF ACQUISITION (Public solicitation, private or non competed) award criteria					
COST/PRICE MANAGEMENT HISTORY (any cost overruns and under runs, and cost growth and changes)					
HAVE YOU HAD ANY CONTRACT TERMINATIONS IN THE LAST TEN (10) YEARS?					
REASONS FOR TERMINATIONS (for contractor convenience ó for default or other)					

(*1)Consulting, construction, design, work oversight, delegated administration If you are not a company explain if you were the superintendent, director or other.

(*2) En here you should indicate which activities performed are similar to the work being contracted.

I certify that the information is accurate and verifiable

Signature of the Legal Representative _____ Date _____

Name of the Legal Representative _____ Id Number _____

Artículo 289 del Código Penal Colombiano: *"El que falsifique documento privado que pueda servir de prueba, incurrirá, si lo usa, en prisión de uno (1) a seis (6) años."*